

**WHAT IS CLAIMED IS:**

1. A computer system for dynamically accessing externally connecting storage devices, for allowing one or more of the storage devices to be dynamically connected to or separated from the computer system via a hot plug connection, the computer system  
5 comprising:

a connection interface connected with the one or more storage devices;

an input/output (I/O) control circuit for being connected with or separated from the one or more storage devices, wherein the I/O control circuit outputs an informing signal when a connection status between the one or more storage devices and the I/O  
10 control circuit changes;

a system control circuit connected with the I/O control circuit, for receiving the informing signal from the I/O control circuit and consequently outputting an interrupt request signal;

an interface control circuit connected with the connection interface, for  
15 controlling a transmission format and an interface format of the connection interface according to internally stored interface settings in the interface control circuit; and

a central processing unit connected with the connection interface and the system control circuit, for accessing the one or more storage devices via the connection interface, and for receiving the interrupt request signal from the system control circuit to  
20 consequently determine if the interrupt request signal corresponds to a change of the connection status between the I/O control circuit and the one or more storage devices, wherein if yes, the central processing unit loads corresponding interface settings into the interface control circuit according to the number and arrangement of the one or more storage devices connected to the I/O control circuit.

25 2. The computer system of claim 1, wherein the computer system is a storage server system.

3. The computer system of claim 1, wherein the I/O control circuit is a super I/O chip.

4. The computer system of claim 1, wherein the system control circuit is a south bridge chip.

5 5. The computer system of claim 1, wherein the externally connecting storage device is a storage device having large capacity.

6. The computer system of claim 3, wherein the I/O control circuit has one or more I/O ports for being connected with the storage devices.

7. The computer system of claim 5, wherein the storage device having large  
10 capacity is a disk drive.

8. The computer system of claim 6, wherein the I/O port is a GPIO (General-Purpose Input Output) port.

9. The computer system of claim 7, wherein the connection interface is a disk drive interface.

15 10. The computer system of claim 9, wherein the disk drive interface is of a format selected from the group consisting of IDE (Integrated Device Electronics) format, E-IDE (Enhanced-IDE) format, ATA (Advanced Technology Attachment) format, and ATAPI (ATA Packet Interface) format.